Book Review: Understanding Second Language Processing. A focus on Processability Theory

As a Senior Lecturer in Language Assessment, I have conducted research to develop and validate both high-stakes standardised and classroom-based English tests in various contexts e.g. educational, academic and professional. In particular, I am interested in the cognitive dimension of test construct, i.e. the cognitive processes a learner would normally employ to perform a language task in the target language use domain. When we (researchers in language assessment) develop and validate language tests, it is essential to collect empirical evidence to demonstrate the extent to which the cognitive processes elicited by the test, through specified task features, can represent the cognitive processes used by language users in real-life contexts. Processability theory makes universal predictions for the language acquisition of L2 learners. According to processability theory, there are five developmental stages which benchmark learner development. I was interested to see how the book: Understanding Second Language Processing. A focus on Processability Theory might inform my research in language assessment. Another challenge of language test development is the need to specify the construct at different levels. I wondered how processability theory's definition of developmental stages can be applied in language assessment practice.

The book gives an accessible introduction to processability theory. To help readers to understand the relation between processability theory and second language acquisition, the authors often cross-reference terminologies, concepts and methodologies between the two. There is a useful illustration of how English and Swedish instantiate the five fundamental stages with ample examples of learner data. The book provides a clear overview of processability theory, but more importantly, raises thought-provoking questions in relation to its applications, constraints and future directions in research. For example, how comparable is L1 and L2 acquisition? How learners in different contexts may acquire language differently? Do the developmental stages apply only to the speech processing or equally to reading comprehension and written production? I was constantly prompted by these questions to reflect on my own research.

The authors address central issues of processability theory including the typological challenge, learner categories and variation in second language processing. Most readers would find these issues familiar in their own educational and research contexts. Seventeen languages are presented in the book to demonstrate how processability theory has been applied to typologically diverse languages. It was interesting to read about the many similarities in the learner versions of these target languages. The authors note that most of the processability theory studies looked for accurate use as evidence of processing and as a result concluded that advanced learners were more accurate, i.e. producing more target-like language use. However, the authors caution the difference between 'accuracy', 'emergence' and 'appropriate use', and argue that processability theory predicts level of processing (i.e. advanced learner being able to process higher stages of language use) rather than accuracy. The distinction between these types of evidence is also an important issue in language assessment, especially as most language tests now focus more on leaners' language use in communicative situations rather than their grammar knowledge.

While processability theory traditionally positions itself in second language acquisition, it opens up discussions about the comparability of the language processing of learners across categories (e.g. first, second and foreign language learners, learners from formal and informal contexts as well as learners

of different ages). As noted by the authors, while processability theory makes common predictions of language developmental stages, there is variation in the acquisition of some developmental features between learners. Similarly, the influence of test taker characteristics on test performance is widely discussed in language testing research. Most large-scale standardised language tests, from general proficiency tests like IELTS and TOEFL iBT to language tests for specific purposes like Occupational English Test (Medical English), target a wide range of test taker populations. For example, if L1 and L2 learners vary in their language development in a regular way, to what extent can language assessment control the impact of variation in test taker's developmental stages on test performance while achieving test validity and fairness? I agree with the authors that more research on the role of environment (which is usually addressed as context in language test development) in influencing psycholinguistic variation would be necessary to account for inter-learner and intra-learner variation in general language processing. In addition, research on how different learner groups acquire language (or learn through formal teaching) in specific contexts such as academic, medical or aviation would be a welcome addition to the current processability theory research.

Although processability theory's prediction of universal language developmental stages has important implications for language teaching and assessment, its application in language assessment is currently limited. As the authors suggest, processability theory could be an important tool to diagnose language impairment among bilingual and students with specific language learning difficulties. However, the authors observe that most second language assessment projects informed by processability theory focused on form rather than meaning. While they can provide useful diagnostic information of learners' grammatical development in stages, their operational principles might not be aligned with current practice in large-scale language assessment where evidence of learners' language performance (form and meaning) in communicative contexts is emphasised. The authors, therefore, welcome the emerging new trends of processability theory research to explore the intersection between form and meaning in communicative contexts. Another issue limiting the application of processability theory on language assessment might be the lack of language processing evidence on comprehension and writing. The authors review some studies showing evidence that writing might follow the same stages as speaking but more research is needed to elucidate relationship between input processing and production. This would be particularly useful for integrated assessment where learners are required to demonstrate language use between modalities, for example, to summarise main ideas from reading texts and listening input. These lines of research would certainly inform future language assessment practice by forging a closer link between language development stages and communicative assessment criteria.

Readers from a range of backgrounds and interests would find the book useful in providing a lucid account of second language processing. The arguments made by the authors and questions raised in the book have importance implications for research on psycholinguistics, pedagogy and language assessment. As urged by the authors, a closer relationship between processability theory (or second language acquisition) and these fields would be welcome.